DOCUMENT RESUME

ED 214 5[illegible] IR 010 112

AUTHOR	Niles, Anne G., Ed.
TITLE	The Dial Access Library for Health Professionals in Wisconsin: An Historical Account.
INSTITUTION	Wisconsin Univ., Madison, Univ. Extension.
PUB DATE	Jan 82
NOTE	102p.
EDRS PRICE	MF01/PC05 Plus Postage.
DESCRIPTORS	*Audiotape Recordings; *Dial Access Information Systems; Health Personnel; Information Retrieval; Library Services; *Medical Libraries; *Nurses; *Physicians; Professional Continuing Education; Program Evaluation; Statistical Analysis; Use Studies
IDENTIFIERS	*Medical Information Systems; *Wisconsin

ABSTRACT

The development of the telephone dial access service is described, including initial services, procedures, library service, promotion and publicity, evaluation, and experimental programs, as well as arrangements with other states, institutions, and agencies and a study of the feasibility of a national dial access library. The major portion of the report consists of appendices, which include: facts on the service and its operations, a comparison of 1971 and 1979 survey responses, a 1974-75 report on the service, samples of MD self-test materials, a summary of the conclusions of a feasibility study for establishing a national medical dial access information retrieval system, a chart indicating the number of calls by month, and a table indicating the number of calls by health professionals. Three references and a 24-item bibliography are provided. (RBF)

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THE DIAL ACCESS LIBRARY

FOR

HEALTH PROFESSIONALS IN WISCONSIN: AN HISTORICAL ACCOUNT

BY

ANNE G. NILES, R.N., PH.D.

Editor and Coordinator

CONTINUING EDUCATION IN NURSING
HEALTH AND HUMAN SERVICES AREA
UNIVERSITY OF WISCONSIN-EXTENSION

January 1982

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DIAL ACCESS LIBRARY FOR HEALTH PROFESSIONALS

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The University of Wisconsin-Extension was a pioneer in the development and implementation of a telephone dial access library for health professionals. The use of such a service was conceived by Thomas C. Meyer, M.D., chairman, Continuing Medical Education (CME), and associate dean of the medical school. (See Appendices A and B.)

The concept for the dial access library, first established for physicians, was based upon the following major obstacles faced by busy practitioners: (1) a shortage of time to devote to continuing education; and (2) the need to make decisions when usual sources of references were either outdated or not immediately available.[1/] Therefore, in 1966, CME (formerly the Department of Postgraduate Medical Education) designed a pilot project that became the Medical Dial Access Library.

HISTORICAL

Medical Dial Access

Under the pilot project, a library of four- to six-minute tape recordings made by medical school faculty members was developed, focusing on information applicable to clinical practice. The library was located in the pharmacy of University Hospitals, Madison, in order to use existing personnel for around-the-clock service. Two telephone lines were installed (one for local calls and one for those outstate), and physicians paid long-distance charges when applicable. Service began with 50 recordings and increased shortly thereafter to 88 tapes under an expansion grant from the United Health Foundation, extending from January 1, 1967 to June 30, 1968.

Initial reaction to the idea of a dial access system was positive, and in late 1967, the program was additionally funded by the Wisconsin Regional Medical Program, Inc. (WRMP). This funding led to the installation of a duplicate library in Milwaukee and Inward Wide Area Telephone Service (IN-WATS) to relieve the caller of charges. By locating duplicate libraries in Milwaukee and Madison, the majority of Wisconsin physicians were served by local telephone lines.

On January 2, 1968, the library of 230 tape recordings became accessible to Wisconsin physicians at any hour and without cost to them. Each physician received a brochure listing the tapes and the number of the library. As further notice, bulletin boards were strategically placed in all hospitals for continuing notices about the library; for example, supplemental listings of tapes were periodically issued

and selectively distributed. To listen to a tape, the physician had only to dial the telephone number designated for the area and request the tape by number.

The Medical Dial Access Library continued under WRMP funding until August 31, 1971, at which time a subscriber service was offered to physicians by CME. Through payment of an annual fee of $25, the subscribing physician had access to the library at no further cost. Subscriber service continued until September 1977, when the Medical and Nursing Dial Access Libraries were combined into the Dial Access Library for Health Professionals in Wisconsin. Coordination of the physicians' library was under the direction of Richard H. Hansen and Roy Ragatz.

Nursing Dial Access

NURSING DIAL ACCESS was developed by Continuing Education in Nursing (formerly the Department of Nursing) under a 1967 grant from the Wisconsin Regional Medical Program, Inc. After a planning year, service began on September 16, 1968, with 45 nursing tapes and 76 medical tapes. The program was developed parallel to the Medical Dial Access Library, and joint library facilities were used, although separate telephone lines and numbers were initially installed.

NURSING DIAL ACCESS was designed primarily to meet the needs of nurses practicing in isolated settings, either geographically or by occupation, where continuing education resources were often limited. However, the library was widely used as a teaching resource by instructors in schools of nursing and by inservice educators in staff development programs.

WRMP funds continued to support the nursing library, in part, through September 1972, when federal Extension Service funds were provided through Cooperative Extension. Extension Service funds continued until September 30, 1981, at which time the program was discontinued because of budget cuts. From inception of service until closure, Wisconsin nurses were able to call from any telephone within the state to hear tapes at no cost to them. Project directors were Signe S. Cooper, R.N., and May S. Hornback, R.N., Ph.D. Anne G. Niles, R.N., Ph.D. was editor and coordinator for the nursing Library.

Dial Access Library for Health Professionals

In September 1977, the medical and nursing libraries combined, and service was extended to other health professionals. The name was changed to the Dial Access Library for Health Professionals in Wisconsin, and the library continued with this focus until budget cuts resulted in closure on August 31, 1981. The library was administered through the Allied Health Program Area and Continuing Education in Nursing, Health and Human Services Area, under the direction of Anne G. Niles, R.N., Ph.D.

PROCEDURES

Topic Selection

The focus of the WRMP grant was on heart, cancer, stroke, and related diseases, and the majority of early tapes dealt with these conditions. However, some topics held a commonality with other conditions also. For example, the following topics presented nursing care aspects that correlated to but were not limited by the focus of the grant:

Diet for Patients Unable to Chew; Care of the Patient with Decubitus Ulcers; and *Safety Precautions in the Administration of Oxygen.*

Selection of initial medical library content as well as identification of contributing faculty was made by the Medical Center Committee on Continuing Education, composed of representatives of the major medical school departments. During the early days of the program, recordings were made informally in physicians' offices. However, as the program developed, professional recording techniques were used.

Prior to the development of the nursing library, enrollees attending institutes sponsored by Extension Nursing, faculties in schools of nursing, and others were alerted to the proposed access system. Topics and authors were suggested by these nurses. From their suggestions a list of topics was compiled and mailed with a questionnaire to 1800 Wisconsin nurses, representing a ten per cent sample, to obtain reactions to both the program and topics as well as to elicit additional suggestions.[2/] There was an overwhelming response of enthusiasm. A side benefit gained from this preliminary contact was to create a climate of anticipation that stimulated interest when the program became effective.

Some of the topics originally suggested were deleted because it was felt that visual aids would be required. Other topics that might better respond to visual aids but for which these aids were not deemed critically necessary were accepted for experimental purposes.

When the library expanded service, an advisory committee that included representatives from selected allied health disciplines was formed. Members from this committee determined the interests of their

respective groups and advised on topics and authors. Because of funding limitations, expansion of the library was never fully realized. Only a limited number of tapes for allied health personnel were developed.

Script Review

Varying methods to facilitate the review of scripts were tried. Essentially, however, each method used a form of peer review. For example, in the NURSING DIAL ACCESS program, a tape review committee assisted with the process. Scripts were reviewed by one or more members of the committee, others knowledgeable in the subject area, and/or CEN staff. Because the author was selected for recognized expertise, the review was not designed to control content. Editorial evaluation attempted to determine if the material was presented in the most concise method for best listening appeal and was in line with current practice. Reviews were confidential, and the names of authors and reviewers were not known to each other. An edited script was then submitted to the author for acceptance.

During the first several years of the dial access programs, scripts were reviewed annually by authors for updating, and new catalogues listing tapes were printed. As the volume of tapes in the library expanded, and with increased printing costs and reduced personnel, a biennial review was established. Approximately one year before the issuance of a new catalogue, the authors were sent copies of their scripts and asked whether the tapes should remain in the library as narrated, be updated, or be withdrawn. Because the review process required about a year from the time scripts were readied for mailing until a catalogue

was published, a firm funding base to assure continuation would have impacted more effectively on the program. Assurance of funds was a continuing problem for the dial access programs.

Tape Production

Until November 1978, the facilities of the University's Medical Communications Center were used for tape production. After that date, those of the Instructional Communications Systems (ICS) were used.

Initially, authors were asked to narrate their scripts. However, arranging schedules to accomplish this became too involved, particularly when authors were not in the Madison area. Therefore, as tapes were updated or new ones entered into the library, narration was done by CME, CEN, or ICS staff, unless the author preferred to narrate the tape.

Master tapes were kept at the recording studio and, initially, duplicate cartridges were made for the Dial Access Library. The duplicate became a back-up when breakage or other accidents prevented use of a primary cartridge. However, as the number of tapes increased, storage became a problem, and the back-up system was discontinued. Close working arrangements between the library coordinator, the answering service, and the tape production crew permitted rapid notification of need and duplication of a tape when this became necessary. In 1974, the library converted from use of cartridges to cassettes.

Authors were provided with guidelines for the preparation of scripts and were also required to sign releases permitting WRMP, CME, or CEN to use the tapes for educational purposes. (See Appendices C, D, and E.)

Control remained with the University of Wisconsin-Extension, and all tapes were subjected to periodic review. A time-span of six months to one year was allowed from initial contact with an author until a tape was placed in the library.

LIBRARY SERVICE

Because the dial access program was based on the concept of need for the availability of information, answering service was initially provided by the pharmacy of University Hospitals, where the poison control center was answered on a twenty-four-hour basis. During the day, a secretary answered dial access calls; in the evening, a student assistant was employed; and at night, the pharmacist accepted calls. However, as the volume of calls increased, this service could no longer be provided by the pharmacy.

Therefore, in the fall of 1970 the library moved into the Telecommunications Center of the University of Wisconsin, where other answering services were provided. One console was designed for the dial access library, and a telephone operator accepted the calls and played the tapes. As other access programs were developed by University and community groups, the Telecommunications Center also became their answering service

In 1978 a system for the sharing of University telephone lines was developed, but from the viewpoint of this coordinator, this had a detrimental effect. Callers used an all-University number to access the system and were transferred to the library. If library lines were busy, the user had to call again, and the Dial Access Library was billed

for one-minute use of the all-University base number. When the library had its own telephone number, there were no charges for busy-signal calls. The use of the all-University number also made it twice as likely that the caller would experience difficulty in reaching the library, as the base line as well as the dial access line could be busy.

PROMOTION/PUBLICITY

An early determination was made that library usage was dependent upon and in direct response to promotion and publicity. (See Appendix F.) However, budget priorities did not provide for a planned, ongoing publicity program, and target groups were, therefore, identified for promotional efforts. Exhibits were developed for use at professional meetings, and press releases and articles were prepared for professionally-related publications.

All physicians and hospitals in Wisconsin received copies of the Medical Dial Access Library brochure during its funded period. A bulletin board was also provided for the physicians' lounges in each hospital so that supplements listing tapes added or other announcements could be posted. When the program continued on a fee basis, only subscribers received the tape listings. (See Appendix G.)

For the nursing program, target groups for promotion included in-service educators, public health and occupational health nurses, directors of hospitals and nursing homes, and faculties of schools of nursing. In addition, brochures listing the tapes were mailed to each nurse registered in Wisconsin and were available at professional nursing meetings and educational offerings.

No ongoing promotional program was planned for allied health professionals as the funding base did not permit this. However, calls from allied health professionals were regularly received, and it was evident that with adequate developmental and promotional funds, they would use the library extensively.

EVALUATION

Evaluative information was obtained from data collected at the time of the call and also through surveys. Daily log sheets were maintained on all calls, and one consistent finding was the definite correlation between promotion and library use. (See Appendix H.) Because there was not continuing assurance of a funding base, long-term promotional efforts were not possible. Such an effort could have had a stabilizing effect on the numbers of calls coming into the library. Without long-range planned promotion, library utilization fluctuated widely. (See Appendix I.)

Varying types of surveys were used for evaluation efforts. Only highlights from some studies will be presented here, as they are reported elsewhere.[5],[6] (See Appendices J and K.)

Responses of users to the Dial Access Library were generally favorable, as indicated by comments appearing on survey questionnaires:

"Nowhere else can I get as much information in so short a time."

"The tapes are extremely helpful in patient care and in general medical knowledge."

"It's an excellent refresher and an educational opportunity."

"It's a great teaching aid."

"Dial Access fills a need in a busy schedule."

"The ready access to certain information is most helpful in a hospital with a limited collection in the library."

In a comparative study, there is some indication that early nurse users of the Dial Access Library continued to use the service as a learning resource.[3/] (See Appendix J.) The largest percentage of users in a 1971 survey were those 40 to 49 years of age, while in a 1979 survey, it was those 50 years and over. Speculation was that respondents in their 40s during the earlier survey were in their 50s during the 1979 survey and had grown older along with the system.

An early study of NURSING DIAL ACCESS also showed that use of the service was most apt to be from nurses in non-urban areas, a factor that influenced the granting of federal Extension Service funds.[4/] (See Appendix L.) The average call per nurse in counties with less than 60 per cent urban population was .78, while in counties with more than 60 per cent urban population, the number of calls per nurse fell to .58.

It should be kept in mind that the number of calls reported may not always reflect the number of listeners. Some institutions and agencies indicated using speaker attachments or extension telephones for staff development activities for nurses.

EXPERIMENTAL

Bibliographies

At the beginning of the nursing program, authors were asked to provide three references that could be used for in-depth study of the tape topic. In the first nursing brochure (1969), notice that such bibliographies were available was printed on the inside front cover. Only a

dozen or so copies of the reference list were requested. For the next two brochures, a pre-addressed, tear-out card was inserted, and about 450 requests for the references were received in 1970 and nearly 500 in 1971. When the nursing library combined with the medical library, this feature was eliminated because bibliographies were not available for the medical tapes.

Self-Test

For several months in 1969, physicians could participate in self-testing with answers to questions verified by listening to dial access tapes. (See Appendix M.) Approximately 200 physicians, primarily from non-urban areas, requested participation, and there was marked increase in use of the library by physicians asking for the test. Use of tapes other than those providing answers to the self-test was also stimulated.

Newborn Care Testing Program

During April, May, and June 1971, a pre/posttest study was conducted by CME to determine if use of the Dial Access Library had a positive impact on the transfer of knowledge. (See Appendix N.)

The self-examination course related to care of the newborn, and 205 pretests were mailed to physicians and nurses requesting participation. A return rate of 70 per cent (144) was obtained for the pretest. After a one-month period set aside for listening to the tapes on newborn care, a posttest was mailed. Fifty-two per cent (75) of the tests were completed and returned.

The average score on the pretest was 11.9 points out of a possible 23 points. Participants scored an average of 14.2 points on the post-test, an average increase of 2.3 points. The ten per cent increase in average scores was accepted as indicative that listening to the Dial Access tapes had a positive value in the transfer of knowledge.

Quality Assurance Project

A spin-off of NURSING DIAL ACCESS was the development in 1974 of a series of tapes relating to quality assurance programs in nursing. The federal government then required the monitoring of quality and utilization for the care it purchased through Medicare, Medicaid, and Maternal and Child Health programs. The WRMP Nursing Committee, in an effort to disseminate information relative to methods of implementing quality care programs, worked with Extension Nursing to develop a series of tapes for inclusion in the Dial Access Library. The tapes were also available for purchase, and in-service educators used them as their staffs prepared to meet quality assurance requirements. Access to this information seemed sufficiently urgent that scripts for the tapes were also published as a booklet.

ARRANGEMENTS WITH OTHER STATES, INSTITUTIONS, AND AGENCIES

Through contracts, leased lines, Federal Telecommunications Service (FTS), and/or special installations, use of the Dial Access Library was extended to physicians in Minnesota and North Dakota (January 1968 - December 1971); physicians associated with the American Telephone and Telegraph Company (October 1970 - December 1971); physicians and nurses

in the Veterans Administration system (January 1971 - September 1978); and professional personnel in certain installations of the United States Public Health Service hospitals and clinics (1972-74; March 1976-June 1978). (See Appendix O.)

Tapes in the Wisconsin library were also available to other Regional Medical Programs (RMP) and medical and nursing schools on an at-cost basis. For example, among purchasers of all or parts of the library were the RMPs in Alabama, Arizona, Arkansas, Florida, Missouri, Nebraska, New Jersey, New Mexico, New York, North Carolina, Ohio, Oklahoma, Pennsylvania, and Utah. The University of Saskatchewan was also a purchaser of the tapes.

In January 1971, patient information tapes were developed by CME, and the development of Health-Line was initiated. (See Appendix P.)

FEASIBILITY STUDY FOR THE NATIONAL LIBRARY OF MEDICINE

Under Contract No. NLM 69-22 with the National Library of Medicine, National Institutes of Health, Department of Health, Education, and Welfare, a study was carried out by the CME to determine whether or not a national dial access library could be considered. The results of this study were published as *A Study on the Feasibility of Establishing a National Medical Dial Access Information Retrieval System*, prepared for the Lister Hill National Center for Biomedical Communications. The summary of conclusions is presented as Appendix Q.

COORDINATOR'S STATEMENT

The Dial Access Library was a leader in the development of a system for providing information to physicians, nurses, and others in the health field. The library received international acclaim and served as a model for the establishment of similar libraries.

During thirteen and one-half years of service, 261,700 calls were accepted, with more than 160,000 of these from Wisconsin nursing personnel. (See Appendix R.) Nearly 700 tapes were in the library at peak service during the years 1974-75.

Medical Dial Access, NURSING DIAL ACCESS, and the combined Dial Access Library for Health Professionals, suffered from a lack of assured funding from the onset. Funds were granted on a year-by-year basis, which did not provide for adequate support staff or continuity in either program development or long-range promotional efforts. In spite of these problems, the libraries served the needs of their users in a more than adequate manner.

Recognition and appreciation must be extended to all individuals and agencies involved with the development and continuation of the libraries through the years. Special note should be given to the assistance and encouragement of Continuing Education in Nursing, particularly Signe S. Cooper, R.N., chairperson, who sustained support for the library during lean budget years.

An exceptional number of appendices have been attached to this report, which is an effort to provide information to future researchers and historians. In addition, copies of references in the bibliography have been presented to University of Wisconsin's Middleton Health Sciences Library, the University of Wisconsin-Extension Library, and Continuing Education in Nursing to provide access to information about the Dial Access Library for Health Professionals as developed by the University of Wisconsin-Extension.

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ALSO INCLUDED

Photograph, Dial Access Library
Sample brochures
Health-Line information folder

APPENDIX A

FACTS CONCERNING THE WISCONSIN DIAL ACCESS LIBRARIES FOR PHYSICIANS AND NURSES (as of September 1969)

Wisconsin Regional Medical Program, Inc.

307 North Charter Street / Madison, Wisconsin 53706 / Area Code 608/262-9594

T. A. Duckworth
President, WRMP

John S. Hirschboeck, M.D.
Program Coordinator

FACTS CONCERNING THE WISCONSIN DIAL ACCESS LIBRARIES FOR PHYSICIANS AND NURSES (As of Sept., 1969)

1. Started by Dr. Thomas C. Meyer, Assistant Dean of Postgraduate Medicine at the University of Wisconsin Medical School in 1966. Total of 88 tapes cut by faculty members on their own tape recorders. All calls paid for by users. With little publicity, 1,200 calls registered in year of operation.

2. In 1967, support funds from Wisconsin Regional Medical Program permitted expansion of the Library, providing free phone service for all MDs and Nurses in Wisconsin, and the establishment of a separate but similar system of tapes for nurses. The MD program began on January 2, 1968, with 178 tapes, and the Nurse Dial Access Program started on September 16, 1968 with 35 nurse tapes and 70 of the MD tapes which had value to nurses.

   Minnesota and North Dakota joined the MD Library in September, 1968. All tapes produced under controlled conditions at Medical Communications Center, University of Wisconsin.

3. Duplicate Libraries are in the Pharmacy of University Hospitals, Madison, and in Milwaukee County Hospital. Both provide 24 hour service, seven days a week. Answering help is on a voluntary basis, but limited funds are used to pay student help employed in evening hours in Madison.

   In Madison there are six phones: one local phone for all Madison toll-free calls; one In-Wats phone to handle all MD calls outside of the Madison and Milwaukee areas. Two phones for nurses and two phones for Minnesota MDs. In Milwaukee there is a similar set-up, except for the fact that there are two phones for local MD calls from the Milwaukee area and no In-Wats phone for MDs. Instead of two phones for Minnesota MDs there is a single phone for North Dakota MDs. The calls from Minnesota and North Dakota are through leased lines, and charges go directly to the Regional Medical Programs in these two states. Iowa plans to join the Wisconsin system in 1969-70.

4. Facts on use: Over 13,000 MD calls between January 2, 1968 and September, 1969. Nurse calls in Wisconsin average slightly less than 1,000 per month. Relatively few MDs or nurses use the system on a regular basis. Out of 4,500 Wisconsin MDs some 200 use it with a degree of regularity. Most use by small-town General Practitioners; little use by MDs in Madison or Milwaukee, where consultation and medical school resources exist. While no special effort was made to encourage use among medical students, a substantial number use the service heavily, especially in Milwaukee. Few specialists use it on a regular basis.

5. Reaction of Users: Every user sent a double stamped postal asking him to record why he called; out of curiosity, for updating of knowledge, or because of a patient problem. Also asked to state if the tape provided new knowledge, if it was too elementary, and whether it was helpful in meeting a specific problem. More than 75% of those sent cards return them. Of these 38% report they had a specific patient problem in mind when placing the call, and more than 70% of these report the tape was helpful. The majority of the few who report a tape "too elementary" are specialists.

   Nearly all who use the system like it and ask that it be continued and expanded. The major problem is keeping the service before doctors and stimulating their use of the tapes. As new tapes are produced a listing sent each hospital for posting on a special bulletin board provided. Also a monthly self-test sent 200 MDs who requested it. Each test related to a specific tape, with user phoning for tape to check his answers.

6. Time most frequently used: Increasingly in afternoon and in evening hours. Obvious that many doctors are making calls from their homes during evening and late hours before midnight.

7. Cost: Around $25,000 annually, which includes part-time of project director, full salary (around $6,000) for project assistant, full time of one secretary (around $5,000). Cost also includes production of tapes (4 copies of each topic), publication of 10,000 brochures and 10,000 supplements annually, postage for distribution of brochures, and small sums for office supplies. Around $7,000 in phone services.

8. Updating: All authors asked to review tapes after one year of use and update them when required. (This the most difficult part of the program, and we would advocate written scripts and the use of a professional reader. The author is more likely to update a script than to re-cut an existing tape).

9. Availability of Tapes: All tapes (306 as of September, 1969) in the Wisconsin Library are available for purchase, with prices ranging from $2.50 per topic (when entire Library purchased in sub-master form and with purchaser putting on the proper ending on each tape) to $10.00 per topic (where Wisconsin winds the tape on individual cartridges suitable for use with the "Cousino Repeater, Model R-7320, manufactured by Orthronics, Inc., 1951 Franklin Avenue, Toledo, Ohio 43601, at around $100.00 per unit), puts on the appropriate ending and provides 2 cartridges per topic.

The entire Wisconsin Library has been purchased by the New Mexico, Missouri, and Northwestern Ohio Regional Medical Programs, and multiple tapes have been purchased by Central New York Regional Medical Program, Intermountain Regional Medical Program and others.

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For Further Information, write or phone:

Mr. Roy T. Ragatz
Project Director
307 North Charter
Madison, Wisconsin 53715

608-262-4515

APPENDIX B

FACT SHEET ON OPERATION OF DIAL ACCESS
LIBRARY SERVICE IN WISCONSIN

November 17, 1970

FACT SHEET ON OPERATION OF DIAL ACCESS LIBRARY SERVICE IN WISCONSIN

1. Start: Began in 1966 at University of Wisconsin Medical School as experiment in Postgraduate Medical Education. Total of 88 tapes prepared on variety of topics and limited to 6 minutes. User paid for call.

2. Use: During 1966-1967 approximately 1,200 calls from MD's all over the U.S. Little publicity provided program. Use suggested expansion with use of Regional Medical Program funds, and to provide free service for all MD's in Wisconsin.

Funded in 1967 and Library expanded to nearly 200 tapes. Nurse Dial Access program also funded, and initial steps taken for preparation of nursing tapes.

MD Library started operation on January 2, 1968. Nurse Dial Access started on September 16, 1968, and Minnesota and North Dakota added to the MD service through special leased lines.

Since January 1968 over 18,000 MD calls handled, and over 22,000 nurse calls have been recorded.

In October 1970 all physicians associated with A.T. and T. were given access to the service through a special line installed by A.T. and T.

Plans are under way to expand the service to all VA Hospitals which are part of the Federal Telephone System, in which event the program would become nation-wide, for all MD's and Nurses associated with Veterans Administration Hospitals.

3. Sale of Tapes: The Wisconsin program has made the tapes available to all other Regional Medical Programs and to Medical Schools at a low-cost figure. The complete MD Library has been sold to the following Regional Medical Programs: Arizona, Arkansas, Alabama, Northwestern Ohio, Oklahoma (Enid, Oklahoma). Partial Library sales to: New Mexico,

Central New York (Sayre, Pa.), North Carolina, Intermountain (Utah), New Jersey, Missouri.

Medical Schools: University of Saskatchewan, Saskatoon (complete Library), University of Nebraska, Indiana (South Bend hospital affiliate).

4. Who Uses, Where:

Most usage (after initial "curiosity listening") among GP's in smaller communities away from Medical Centers or large cities with specialty referral sources.

After initial use only about 5% of the doctors use the service on a somewhat continuing basis. Most calls in late afternoon or evening, which suggests that the most constant users of the service use the Library after work, with calls made from their homes.

5. Reactions of Users:

Uniformly favorable. During October 1968 and January 1969, 1,049 cards sent to users to ascertain why they used the system, and whether or not they acquired new information which, presumably, they could relate to improved patient care.

72% return
Of those who returned the card approximately 45% reported they called for general information or curiosity. Of these nearly 90% said they found the tapes helpful, and around 50% said they had gotten new information from use of the tape.

Of greatest interest were those who reported they had called because of a specific patient problem. Of the "patient related" calls nearly 40% termed their call an "emergency" (not immediate, life-saving, but related to a specific patient problem of major concern to the calling MD). Sixty-eitht percent stated that the tape provided new information which they could directly translate into improved patient care, and 38% stated that listening to the tape did influence their management of the patient problem which prompted the call. Three fourths of those who called because of a specific patient problem felt that the information on the tape reinforced their confidence in their management of the patient, while only 3% felt the tape was too elementary.

6. What Information Most Requested:

Largest number of calls to date on tape which deals

with Rh problem of the pregnant patient; one on "Marriage on the Rocks" has had high usage, and many in areas of Cardiovascular Disease are most frequently requested. General high interest in tapes related to allergy, psychiatric problems of the Family MD and problems related to diabetes, strokes, renal failure, and cancer.

7. Information Least Requested:

Little sustained interest in tapes related to rehabilitation, resources in the state for special medical problems, and some of the Ear, Nose and Throat tapes.

SOME GENERAL CONCLUSIONS

1. No Panacea:

Only a relatively small number of physicians will use a service of this character on a continuing basis. But of those who do there is great satisfaction in the teaching resource, and reported benefits are experienced by the physician (and presumably by the patient in terms of patient care).

2. Relatively Low Cost:

Compared to films, TV or some other modes of communication this service is low in cost. The production of tapes is inexpensive (so long as authors are not paid) and the major expense is that of maintaining free phone lines. Could be maintained on a fee basis, as a continuing service to hospital personnel, with hospitals paying on a sliding scale, based on bed capacity and size of staff.

3. Not Self-Generating:

For continued use there must be continuing publicity of the service, a method of announcing new tapes, and such devices as "Self-Tests" to stimulate use of specific tapes.

4. Adaptable For Multiple Use:

While the Wisconsin program has been funded for only

MD and Nurse tapes it is evident that use of the system by many allied health professions would be disirable, and could be easily accomplished. This would involve lab technicians, therapists (both occupational and physical), medical social workers, speech therapists, etc.

APPENDIX C

PERMISSION TO RECORD, BROADCAST, AND RELEASE

PERMISSION TO RECORD, BROADCAST, AND RELEASE

I, the undersigned, hereby consent to the recording, broadcast and release of the whole or part of my recording on the audiotape designated:

The use of this instructional material shall be for non-profit educational purposes only, and its release shall be determined by the University of Wisconsin-Extension.

Signed _____

Title _____

Date _____

August 1978

APPENDIX D

PROCEDURE FOR TELEPHONE DIAL ACCESS TAPES

PROCEDURE FOR TELEPHONE DIAL ACCESS TAPES

1. Permission slip is signed by author and returned to the Dial Access Coordinator.

2. Script is submitted by deadline agreed upon.

3. Script is reviewed by members of a review committee and/or others upon request from University of Wisconsin-Extension.

4. Edited script is returned to author for approval.

5. Author's name appears with tape listing, but narration of tape may be assumed by University of Wisconsin-Extension.

6. Author will be requested to review the manuscript at least every two years to determine whether tape should be revised or withdrawn from the Library.

7. Unfortunately, funds are not available to pay an honorarium to authors.

August 1978

APPENDIX E

GUIDELINES FOR THE DEVELOPMENT OF SCRIPTS FOR THE DIAL ACCESS LIBRARY

GUIDELINES FOR TELEPHONE DIAL ACCESS SCRIPTS

The preferred running time for tapes is five minutes. Content, therefore, must be limited to a single-concept presentation. A sequence of related tapes may be developed to expand upon the topic. The following suggestions may help you in the preparation of your script.

1. Script should be 2 to 2 1/2 pages, (never more than 3 pages), typewritten, double-spaced, on 8 1/2" X 11" paper, with margins of 1 1/2".

2. Avoid a long introductory paragraph.

3. Eliminate all extraneous information and phrasing.

4. Include answers to questions frequently asked, but exclude extensive literature review and statistics.

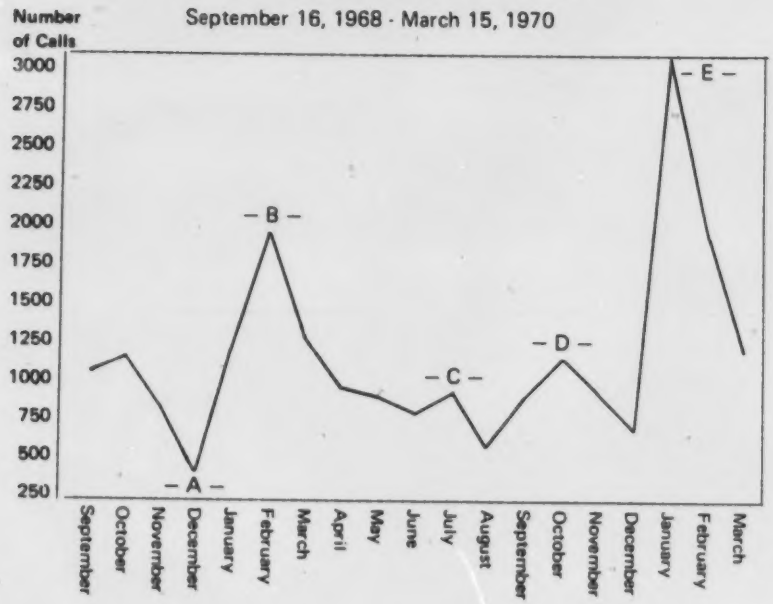
5. Briefly state what you are going to present: present it; summarize what you have presented.

August 1978

APPENDIX F

GRAPH SHOWING NUMBER OF CALLS BY MONTH,
SEPTEMBER 16, 1968 - MARCH 15, 1970

Graph Showing Number of Calls by Month



A–Funds not available for publicity
B–First brochure mailed to individual nurses
C–Supplement mailed to selected groups
D–Supplement mailed to selected groups
E–Second brochure mailed to individual nurses

Calls by Month September 1968 - March 1970

1968		1969		1970	
Month	Calls	Month	Calls	Month	Calls
September	1061	January	1222	January	3076
October	1162	February	1946	February	1892
November	827	March	1277	March	1214
December	386	April	995		
		May	951		
		June	796		
		July	963		
		August	643		
		September	903		
		October	1164		
		November	959		
		December	737		

FROM: Niles, A.G. Definitive Dialing .. Nursing Dial Access, A Report of the Planning Year and the First Eighteen Months in Operation, September 18, 1968 - March 15, 1970. Madison: University of Wisconsin-Extension, Department of Nursing, 1970, p. 19.

APPENDIX G

DIAL ACCESS SUBSCRIBER BULLETINS
(MARCH AND MAY 1972)

DIAL ACCESS SUBSCRIBER BULLETIN

#3: March 1972

Listen to the following new tape recorded at the University of Wisconsin:

821: LUNG SCAN FOR PHYSICIANS
Ian Tyson, M.D., Madison

This tape details nuclear medicine techniques in the diagnosis of pulmonary embolism.

The following tapes have been revised recently:

6: TREATMENT OF ACUTE PULMONARY EMBOLISM
Dean Emanuel, M.D., Marshfield

25: RECOGNITION AND TREATMENT OF OBSTRUCTIVE PULMONARY CRISIS
Robert A. Barbee, M.D., Tucson, Arizona

102: THE GYNECOLOGIC EXAMINATION
Frederick J. Hofmeister, M.D., Wauwatosa

127: DIAGNOSTIC TECHNIQUES IN HYPERTENSION
Dean Emanuel, M.D., Marshfield

150: SURGICAL RELIEF OF INTRACTABLE PAIN
C. N. Shealy, M.D., La Crosse

235: INDICATIONS FOR CHROMOSOME STUDIES
Frank Walker, M.D., Milwaukee

245: EXERCISE ELECTROCARDIOGRAMS: METHODS, CRITERIA AND INDICATIONS
D. J. Freeman, M.D., Wausau

258: COUMARIN ANTICOAGULANTS: POTENTIATORS AND ANTAGONISTS
Ovid O. Meyer, M.D., Madison

303: EXCRETION OF DRUGS IN HUMAN MILK
Drug Information Center, University of Wisconsin Hospital

328: MULTIPLE MYELOMA
Robert A. Kyle, M D., Rochester, Minnesota

338: VASECTOMY
Robert Benjamin, M.D., Minneapolis, Minnesota

371: ANTICOAGULANT DRUGS
Francis Kazmier, M.D., Rochester Minnesota

409: FEBRILE SEIZURES IN CHILDREN
George J. Wolcott, M.D., Madison

* * * * * * * * * * *

WE'RE SWAMPED: All Veterans Administration hospitals in the United States on the Federal Telephone System are using our library and we are handling over 100 calls a day! So join the crowd and use the service. We want you as a continuing subscriber

DIAL ACCESS SUBSCRIBER BULLETIN

#4: May 1972

The following tape which is of great current interest was recorded at the University of Wisconsin:

822: SICKLE CELL ANEMIA
N. T. Shahidi, M.D., Madison

The content of the tape includes the definition of sickle cell trait and sickle cell anemia and their respective incidence. Particular emphasis is placed on the clinical manifestations and the treatment of sickle cell anemia.

These tapes have recently been updated:

17: STROKE: MEDICAL VS. SURGICAL
H. E. Booker, M.D., Madison

24: MOLES AND MELANOMA: DIAGNOSIS AND TREATMENT
Robert O. Johnson, M.D., Madison

35: NEUROSURGERY IN PARKINSON'S DISEASE
Flavio Puletti, M.D., Madison

111: TREATMENT OF HEMOLYTIC CRISIS
A. V. Pisciotta, M.D., Milwaukee

112: EMERGENCY TREATMENT OF ACUTE LEUKEMIAS
A. V. Pisciotta, M.D., Milwaukee

182: PREVENTION OF Rh IMMUNIZATION
S. J. Masouredis, M.D., University of California - San Diego

410: RECOGNITION OF HEART DISEASE AND MANAGEMENT OF CONGESTIVE HEART FALURE IN INFANCY
Marion K. Ledbetter, M.D., Madison

439: HEADACHES IN CHILDREN
George J. Wolcott, M.D., Madison

461: TREATMENT OF GASTRIC ULCER
Philip W. Brown, Jr., M.D., Mayo Clinic, Rochester, Minnesota

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On August 31, 1972 your year's subscription to the Dial Access Library will expire.

We will be asking you to renew your subscription during the summer months and we hope you will join us again next year.

APPENDIX H

CALL SHEETS

Anne G. Niles, R.N., Coordinator
Department of Nursing–UW-Extension
608/262-0566

Date:

DIAL ACCESS LIBRARY FOR HEALTH PROFESSIONALS

Tape Number	Identity of Caller		COMMENTS
	Nurse (RN, SN, LPN)	Other	

Date _____

DIAL ACCESS LIBRARY: Wisconsin MDs and RNs, V.A. MDs and RNs, North Dakota, Minnesota

TAPE NO.	CHECK ONE				CHECK ONE		CALLER'S NAME OR NUMBER (No Name for Wis Nurses)	CITY (And State if VA)
	Wis	VA	ND	Minn	MD	Nurse		

42

48

47

APPENDIX I

DIAL ACCESS CALLS BY MONTH: SEPTEMBER 16, 1968 - AUGUST 31, 1981, NURSING AND ALLIED HEALTH PROFESSIONALS

Nursing and Allied Health Professionals

Dial Access Calls by Month: September 16, 1968 - August 31, 1981

Month	Years													
	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
January		1,222	3,076	2,531	1,587	1,145	1,822	1,927	1,724	1,134	670	637	604	497
February		1,946	1,892	1,755	1,804	1,028	1,877	1,815	1,438	1,067	791	662	754	719
March		1,277	1,214	1,443	1,697	1,604	1,888	1,381	1,267	1,305	564	550	572	663
April		955	1,048	1,050	1,138	683	1,727	1,290	1,395	800**	636	456	526	361
May		951	815	1,161	1,001	757	1,279	689	748	505	581	329	360	257
June		796	516	1,087	945	603	1,171	508	640	371	281	299	226	226
July		963	876*	978	666	481	752	780	935	325	885	224	751	195
August		643	327*	451	984	1,015	1,266	695	646	397	993	366	2049	217
September	1,061	903	821	633	1,101	1,845	1,707	1,473	1,660	1,277	1,105	571	1067	--
October	1,162	1,164	994	3,423	1,235	2,462*	2,589	2,193	1,278	893	986	590	853	--
November	827	959	1,492	1,934	1,649	3,330	1,816	2,005	997	780	764	688	540	--
December	386	737	1,030	1,287	1,089	1,294	1,011	967	786	502	433	420	369	--
TOTAL	3,436	12,556	14,091	17,733	14,896	16,247	18,965	15,723	13,514	9,356	8,689***	5,792	8,671	3,135

GRAND TOTAL: 162,804

* Incomplete Data

** Beginning April 1977, data collected reflect calls that include V.A., Public Health and Wisconsin nurses.

Average calls/month 1,046 1,175 1,478 1,241 1,354 1,580 1,310 1,126 763 724 483 723 392

*** Beginning July 1, 1978, data collected reflect calls from all health professionals. Prior to that date, number reflects nursing calls only.

APPENDIX J

COMPARISON OF PROFILES OF RESPONDENTS,
1971 and 1979 QUESTIONNAIRES,
DIAL ACCESS LIBRARIES FOR HEALTH
PROFESSIONALS IN WISCONSIN
(SELECTED PAGES)

COMPARISON OF PROFILES OF RESPONDENTS, 1971 AND 1979 QUESTIONNAIRES, DIAL ACCESS LIBRARIES FOR HEALTH PROFESSIONALS IN WISCONSIN

by
Anne G. Niles, R.N., Ph.D.

Continuing Education in Nursing
Health and Human Services Area
University of Wisconsin-Extension
March 1980

Comparison of Profiles of Respondents,
1971 and 1979 Questionnaires,
Dial Access Libraries for Health Professionals
in Wisconsin

Anne G. Niles, R.N., Ph.D.
Editor and Coordinator

The Dial Access Library for Health Professionals in Wisconsin evolved from a combination of the Medical and Nursing Dial Access Libraries in 1978. Library service to physicians began in 1966 and to nurses in 1968. Between 1967 and 1972 the programs operated on Wisconsin Regional Medical Program funds. From 1973-1979 service was available to physicians on a subscription basis and to nurses under federal Extension Service funds.

Although service has expanded to other health professionals and the physician and nurse programs combined, promotion has been mainly to nurses. The reason for this emphasis is that federal Extension Service funds have continued to be granted to Continuing Education in Nursing to operate the Dial Access Library. Primary users, therefore, are nurses. Experience has shown that usage of the Library is closely allied to promotion. During 1980, for example, only 11 percent of nearly 8,700 calls were from non-nursing personnel. (Data pertaining to numbers of calls and professional identification of callers are available from the annual reports.)

Surveys

1971

A tear-out questionnaire postal card was inserted into the 1970 brochure listing tapes in the Library. (See Appendix A). The brochures were mailed to about 19,000 nurses in Wisconsin, representing those holding nursing licenses in the state. In addition, brochures were available at Extension Nursing offerings, by telephone or mail request, and presented by some inservice educators to new employees. Questionnaires returned during the year following the initial mass mailing were used for analysis (N=924). A report of this study appears in Definitive Dialing ... Nursing Dial Access (Supplement) by Anne G. Niles, University of Wisconsin-Extension, Department of Nursing, 1972.

The purpose of the 1971 study was to examine differences, if any, between users and non-users of the Library. No appreciable differences were noted between these groups. However, because the sample size was small, no generalizations to the total nurse population in Wisconsin could be made.

1979

The purpose of the 1979 survey was to compare the characteristics of respondents, particularly nurse users, with those of the 1971 study. Approximately 30,000 brochures with questionnaire postal cards inserted were mailed to Wisconsin nurses (See Appendix B). In addition, brochures were available in similar manner as described for the 1971 survey. There were 1,064 respondents for the 1979 survey.

Data Analysis

Data from questionnaires for each survey were key-punched and tabulated by the Wisconsin Survey Research Laboratory. Frequencies and per-

centages were compiled into a code book for analysis. (See Appendices C and D). Because percentages were rounded for use in tables, less than two percent differences are not reported as changes. Results of the 1979 study are given using the 1971 study as a base.

Data from all respondents are similar to that from nurse respondents, as 95% were nurses in the 1979 survey. Tables 1-7 present data from all respondents, and Tables 8-13 show that from nurse respondents. Table 14 provides only data concerning nurse users of the Library.

Samples from each survey were too small for generalizations to be made. Tables 8A, 9A, and 10A, however, show similarities and differences of the 1979 nurse respondents in comparison to other descriptive statistics of nurses in Wisconsin.

Appendices A and B provide samples of the survey instruments inserted as centerfolds into brochures listing tapes in the Library. Appendices C and D present data from the code books for each survey.

Results

All respondents in the 1979 Study

1. There was an increase in the percent of nurse respondents. (Table 10)
2. The percentage of respondents 39 years of age and under remained about the same. (Table 2).
3. There was a decrease in the percent of respondents 40-49 years of age. (Table 2).
4. There was an increase in the percentage of respondents 50 years of age and over. (Table 2).
5. There was a slight decrease in the percent of full-time workers responding to the 1979 survey. (Table 3).

6. There was a slight increase in the percent of part-time workers responding to the 1979 survey. (Table 3).
7. The percent of those inactive professionally remained constant. (Table 3).
8. The percent of hospital respondents remained about the same. (Table 4).
9. There was an increase in the percent of respondents from nursing homes. (Table 4).
10. There was a slight increase in the percent of respondents from public health. (Table 4).
11. There was a slight decrease in the percent of response from school nurses. (Table 4).
12. There was a slight decrease in the response from those working in industry. (Table 4).
13. There was a decrease in the percent of head nurse respondents. (Table 5).
14. There was substantial increase in the percent of general staff nurse respondents. (Table 5).
15. The percent of respondents from institutions of less than 100 beds remained about the same. (Table 6).
16. There was an increase in the percent of respondents from institutions of 100-199 beds. (Table 6).
17. The percent of respondents from institutions of 200 beds and over remained about the same. Table 6).
18. The percent of respondents from non-institutionalized settings (or not ascertained) remained about the same. (Table 6).

19. The percent of respondents from communities under 25,000 population remained constant. (Table 7).
20. There was a slight increase in those from communities of 10,000 - 24,999. (Table 7).
21. There was an increase in the percent of respondents from those in communities 50,000 and over. (Table 7).

Nurse User Respondents in the 1979 Study

1. The percent of nurse user respondents 39 years and under was about the same. (Table 8).
2. There was a substantial decrease in the percent of nurse user respondents 40-49 years of age. (Table 8).
3. There was a substantial increase in the percent of nurse user respondents 50 years and over. (Table 8).
4. The highest percentage of nurse user respondents was 50 years and over. (In 1971, it was 40-49 years of age). (Table 8).
5. The percent of nurse user respondents who worked full time remained about the same. (Table 9).
6. There was a slight increase in the percent of nurse user respondents who worked part time. (Table 9).
7. The percent of inactive nurse user respondents remained constant. (Table 9).
8. There was a slight decrease in the percent of nurse user respondents from hospitals. (Table 10).
9. There was an increase in the percent of nurse user respondents from nursing homes. (Table 10).
10. There was a slight increase in the percent of public health nurse user respondents. (Table 10).

11. There was a slight increase in the percent of office nurse user respondents. (Table 10).
12. There was a slight decrease in supervisor nurse user respondents. (Table 11).
13. There was a decrease in the head nurse user respondents, (Table 11).
14. There was a substantial increase in general staff nurse user respondents. (Table 11).
15. There was a slight increase in the percent of nurse user respondents from institutions of less than 200 beds. (Table 12).
16. There was a decrease in the percent of nurse user respondents from institutions with 200 beds or more. (Table 12).
17. There was a slight decrease in the percent of nurse user respondents from communities under 25,000 population. (Table 13).
18. There was a slight decrease in percent of nurse user respondents from communities of populations between 25,000 - 49,999. (Table 13).
19. There was an increase in the percent of nurse user respondents from communities of 50,000 and over population. (Table 13).
20. There was an increase in the percent of nurse user respondents. (Table 14).
21. There was a substantial increase in the percent of nurse user respondents who had used the Dial Access Library over 10 times. (Table 14).
22. There was a substantial decrease in the percent of nurse user respondents who considered the tapes helpful. (Table 14).
23. There was a substantial increase in the percent of nurse user respondents who considered the tapes moderately helpful. (Table 14).

24. The percent of nurse user respondents who did not consider the tapes helpful remained constant at less than one percent. (Table 14).
25. There was a slight increase in the percent of nurse user respondents who used the tapes for personal updating of information. (Table 14).
26. There was a decrease in the percent of nurse user respondents who used the tapes as part of a staff development program (Table 14).
27. There was a decrease in the percent of nurse user respondents who believed that use of the tapes changed their nurse practice. (Table 14).

Nurse Non-User Respondents in the 1979 Study

1. The percent of non-user nurse respondents under 40 years of age remained about the same. (Table 8).
2. There was an increase in the percent of non-user nurse respondents 40-49 years of age. (Table 8).
3. There was a decrease in the percent of non-user nurse respondents 50 years of age and over. (Table 8).
4. There was a slight decrease in the percent of non-user nurse respondents who worked full time. (Table 9).
5. There was an increase in the percent of non-user nurse respondents who worked part time. (Table 9).
6. There was a decrease in the percent of non-user nurse respondents who were professionally inactive. (Table 9).
7. There was a substantial increase in the percent of non-user nurse respondents from hospitals. (Table 10).
8. There was an increase in the percent of non-user nurse respondents from nursing homes. (Table 10).
9. There was a decrease in the percent of non-user school nurse respondents. (Table 10).

10. There was a decrease in the percent of non-user occupational health nurse respondents. (Table 10).
11. There was a decrease in the percent of non-user head nurse respondents. (Table 11).
12. There was an increase in the percent of non-user general staff nurse respondents. (Table 11).
13. There was a slight increase of non-user nurse respondents from institutions of less than 200 beds. (Table 12).
14. There was a substantial increase in the percent of non-user nurse respondents from institutions of 200-299 beds. (Table 12).
15. The percent of non-user nurse respondents from communities under 25,000 population remained constant. (Table 13).
16. There was an increase in the percent of non-user nurse respondents from communities of 25,000 - 49,999 population. (Table 13).
17. There was a decrease in the percent of non-user nurse respondents from communities of 50,000 or over. (Table 13).

Discussion

Tables 8A, 9A, and 10A were developed to examine similarities and differences between the 1979 nurse respondents and characteristics of Wisconsin nurses as determined by other descriptive statistics. Data in these tables reflect surveys conducted as part of the license renewal process for the biennial period 1978-79. The mass mailing for the Dial Access Library survey used the names of these nurses licensed by the Board of Nursing, Wisconsin Department of Regulation and Licensing. Because the Dial Access survey nurse respondents were not all employed, it is recognized that comparison with the employment data on Table 10A may be questioned.

As a group, nurse respondents to the Dial Access survey appear to be somewhat older than those in the 1978 Wisconsin study (Table 8A). They also seem to be less apt to work full time than the 1978 nurse study group. However, the percent of those inactive professionally was the same at 15 percent (Table 9A).

Certain statistics in Table 10A are worthy of comment even though employment comparisons cannot accurately be made. (The 1978 data is based upon employed nurses, while the 1979 data also includes inactive nurses). There is indication that promotional efforts directed to nurses in nursing homes, public health agencies, industry, and faculties in schools of nursing could be considered effective. The percentage of respondents in these categories for the Dial Access 1979 Survey were higher than would be expected if these groups were represented as indicated in the 1978 statistics.

Also of particular interest is the increase percentage of respondents 50 years and over (Tables 2 and 8). A possible reason for this finding is the fact of increasing numbers of older women currently in the work force.

Table 8 also shows that the largest percentage of users in 1971 were nurses 40-49 years of age, while in 1979 it was those 50 years and over. One conclusion from this fact might be that respondents in their 40s during the 1971 survey were in their 50s during the 1979 survey. These respondents may have grown older along with the system and continued to use it as a learning resource. Mini-studies to determine factors contributing to use by this age group would help to clarify this finding.

The decrease in nurse-user respondents who are employed in hospitals (Table 10) may have been reflected in the increase in users from nursing homes. The latter group has been a target for Extension programming in recent years, and Library promotional efforts have also been directed toward these nurses. It is possible that the substantial increase in general staff nurse respondents is also a reflection of the increase in nursing home users (Table 11).

The influence of nursing home construction over the past several years may have contributed to the increase in nurse-user respondents from institutions of 100-199 beds (Table 12). Many of the nursing home beds recently added are in homes within this size range. There was a decrease in percentage of nurse user respondents from institutions of 200 beds and over. The question should be raised as to whether or not there is a correlation between this fact and the decline in inservice use of tapes (Table 14). About one-third of the respondents in each survey apparently are not employed in any institution.

Although there was an increase in the percentage of respondents from very small towns (1000-2499), there was an overall decrease in those from communities of less than 25,000 (Table 13). In contrast, there was a good increase in respondents from communities of 50,000 and over. Speculation might be that this increase was caused by promotional efforts to faculties of schools of nursing, which are located in the larger cities.

One surprising statistic from the 1979 survey is the substantial decrease in the percent of respondents who use the Dial Access Library as part of a staff development program. Because promotion of this resource has been particularly directed to inservice educators, expectation would be that reflection of this effort would appear in data. Because the

Library has expanded to include others than physicians and nurses, tapes recently added may contain content not sufficiently appropriate to nursing inservice needs. It may also reflect an increase in self-directed learners who are using the system through personal choice.

Studies to examine needs and characteristics of non-nurse users should be considered if the Dial Access Library for Health Professionals continues.

Summary

This was a comparative study of the profiles between respondents to the 1971 and 1979 questionnaires inserted into brochures listing tapes in the Dial Access Library for Health Professionals [N=924(1971); N=1064(1979)].

For the most part comparative data did not show dramatic changes in the characteristics of respondents. There was substantiation of promotional efforts to certain groups, particularly nurses employed in nursing homes. There was also indication that inservice educators are not using this resource to the extent they previously were. Supposition may be that expansion of the Library to others than physicians and nurses has diluted the appropriateness of the library for nursing inservice.

There is indication that some users of the Library may have grown older with the system and continue to find it a resource that meets their learning needs.

Tally of 924 Respondents to
1970-71 Tear-out Questionnaire

A. Type of Caller	N	%
RN	853	92.3
LPN	21	2.3
Student RN	27	2.9
Student LPN	3	<1
Student M.D.	1	<1
Administrator	2	<1
Other/not ascertained	17	1.8
	924	100

B. Field of Employment	N	%
Hospital	410	44.4
Nursing home	132	14.3
School of nursing	65	7.
Private duty	12	1.3
Public health	56	6.
School nurse	26	2.8
Industry	48	5.2
Office	37	4.
Other/not ascertained	138	14.5
	924	100

C. Type of Employment	N	%
Administrator or assistant	37	4
Consultant	7	<1
Supervisor or assistant	99	10.7
Instructor	70	7.6
Head nurse or assistant	109	11.8
General duty or staff	379	41
Office	9	1
Other/not ascertained	214	23.2
	924	100

D. Employment	N	%
Active full time	419	45.4
Active part time	353	38.2
Inactive	134	14.5
Not ascertained	18	2.
	924	100

E. Age Group	N	%
Under 20 years	5	<1
20-29 years	191	20.7
30-39 years	253	27.4
40-49 years	278	30
50 years and over	184	19.9
Not ascertained	13	1.4
	924	100

F. Size of Institutional Unit	N	%
Under 10 beds	2	<1
10-24	10	1
25-49	40	4.3
50-99	92	10
100-199 beds	104	11.3
200-299 beds	140	15.2
300 beds and over	216	23.4
Does not apply	198	21.4
Not ascertained	122	13.2
	924	100

G. Size of Community	N	%
Under 1,000	53	5.7
1,000 - 2,499	8	<1
2,500 - 4,999	87	9.4
5,000 - 9,999	102	11
10,000 - 24,999	104	11.3
25,000 - 49,999	158	17
50,000 and above	381	41.2
Not ascertained	31	3.4
	924	100

H-1. Have you used the Dial Access Library?

	N	%
Yes	718	77.6
No	206	22.4
	924	100

H-2. If so, how many times?

	N	% of Users
1-5	308	42.9
6-10	171	23.8
Over 10	221	30.8
Not ascertained	18	2.5
	718	100

H-3. Do you consider the tapes helpful?

	N	% of Users
Helpful	632	88
Moderately helpful	74	10.3
Not helpful	1	<1.
Not ascertained	11	1.5
	718	100

H-4. Use tapes for

	N	% of Users* N=718
Personal updating of information	647	90
Assigned as part of staff development program	91	12.6
Assistance with specific nursing problem	361	50

*More than one answer sometimes given

I. Has use of tapes changed nursing practices?

	N	% of Users
Yes	328	45.7
No	266	37.
Not ascertained	124	17.3
	718	100

Tally of 1064 Respondents to
1979 Tear-Out Questionnaire

A. Type of Caller	N	%
RN	1013	95.2
LPN	7	.7
Student R.N.	31	2.9
Student LPN	3	.3
Student M.D.	0	.0
Other/Not ascertained	3	<1.
	1064	100

B. Field of Employment	N	%
Hospital	476	44.7
Nursing home	173	16.3
School of nursing	66	6.2
Private duty	10	.9
Public health	84	7.9
School nurse	15	1.4
Industry	35	3.3
Office	54	5.1
Other/Not ascertained	151	14.2
	1064	100

C. Type of Employment	N	%
Administrator or assistant	46	4.3
Consultant	11	1.0
Supervisor or assistant	104	9.8
Instructor	89	8.4
Head Nurse or assistant	87	8.2
General duty or staff	528	49.6
Other/Not ascertained	199	18.7
	1064	100

D. Employment	N	%
Active full time	457	43.0
Active part time	436	41.0
Inactive	156	14.7
Not ascertained	15	1.4
	1064	100

E. Age Group	N	%
Under 20 years	8	.8
20-29 years	217	20.4
30-39 years	293	27.5
40-49 years	246	23.1
50 years or over	294	27.6
Not ascertained	6	1.4
	1064	100

F. Size of Institutional Unit	N	%
10 beds and under	2	.2
11-24 beds	2	.2
25-49 beds	42	3.9
50-99 beds	101	9.5
100-199 beds	149	14.0
200-299 beds	174	16.4
300 beds and over	231	21.7
Does not apply/not ascertained	363	34.2
	1064	100

G. Size of Community	N	%
Under 1,000	47	4.4
1,000 - 2,499	41	3.9
2,500 - 4,999	75	7.0
5,000 - 9,999	104	9 3
10,000 - 24,999	142	13.3
25,000-49,999	169	15.9
50,000 - and above	463	43.5
Not ascertained	23	2.2
	1064	100

H-1. Have you used the Dial Access Library?

	N	%
Yes	880	82.7
No	179	16.8
Not ascertained	5	.5
	1064	100

H-2. If so, how many times?

	N	% of Users
1-5	280	33.6
6-10	189	22.7
Over 10	341	40.9
Not ascertained	23	2.8
	833	100

H-3. Do you consider the tapes helpful?

	N	% of Users
Helpful	640	76.8
Moderately helpful	157	18.8
Not helpful	3	.4
Not ascertained	33	4.0
	833	100

H-4. Used tapes for

	N	% of Users* (N=833)
Personal updating of information	760	91.2
Assigned as part of staff development program	60	7.2
Assistance with specific nursing problem	409	49.1

*More than one answer sometimes given.

I. Has use of tapes changed nursing practices?

	N	% of Users
Yes	362	43.5
No	310	37.2
Not ascertained	161	19.3
	833	100

APPENDIX K

1974-75 REPORT, DIAL ACCESS LIBRARY SERVICE
(SELECTED PAGES)

1974-75 Report
Dial Access Library Service

Through a contract with the University of Wisconsin, the Veterans Administration has provided an educational telephone information service for physicians, nurses, and allied health personnel in its hospitals throughout the country. Health professionals may call the University's tape recording library in Madison, Wisconsin, and request that one of more than 700 tape recordings be played for them over the telephone line.

In conformance with the contract, the service is capable of responding to four simultaneous calls from VA health professionals at any time of the day or night. Callers are informed of the variety of tape recordings available by distribution of a brochure by VACO. They utilize the Federal Telephone Service to reach the Madison, Wisconsin exchange and then are connected to the library via a local telephone line. The call is answered by an operator who receives the specific request, selects the appropriate tape recording, and plays it for the health professional.

Also in accordance with the contract, the University has produced new tape recordings for inclusion in the library. In addition, during the past year, a focus of effort was on review and updating of content of existing recordings to assure that callers received current information.

Daily log sheets are maintained of all calls originating from the VA system. These are computerized, and reports for the first three quarters of 1974-75 have been forwarded to VACO. The report for the fourth quarter will become available shortly after July 1, 1975, and will also be forwarded. Utilization figures in this report are based on data for the three quarters indicated, and estimates for the fourth quarter, due to the necessity of filing the report prior to completion of the period.

The tabulation of calls since the service was initiated in January, 1971, is as follows:

Period	Physician	Nurse	Other	Total
1-1-71 - 6-30-71	1,944	-	-	1,944
7-1-71 - 6-30-72	5,967	10,570	313	16,850
7-1-72 - 6-30-73	2,654	7,983	830	11,467
7-1-73 - 6-30-74	2,685	7,092	768	10,545
7-1-74 - 6-30-75	1,639	5,440	324	7,403
Total to date	14,389	31,085	2,235	48,209

Tape recordings available in the library are catalogued in 23 subject areas, and analysis was made to determine statistically significant changes in utilization patterns within these subject areas. For the base period, the number of calls received for a tape recording in a specific category was divided by the total number of calls received during the period, to compute the percentage of total calls in that subject area during the period. This was then done for each subsequent six-month area to determine its percentage figure. A X^2 analysis was then made to determine if any change detected was statistically significant.

The procedure renders two measurements which may be of value to the planners of continuing education for VA physicians and nurses: (1) volume of educational wants and needs in a specific subject area, and (2) whether this appears to be an increasing, constant, or decreasing want and need.

Results

Exhibit 1 presents the data related to physician calls to the library and Exhibit 2 presents similar data for nurse calls. A bar graph illustrates the percentage of total calls received in the specific subject area in six-month intervals. Tabular data gives the number of calls received in the subject area, the total calls received during the period, and the percentage figure. At the bottom of the page, the X^2 determinations are listed.

For virtually every subject area and six-month period, there was a statistically significant change in utilization patterns. In interpreting the data, the following assumptions are made:

1. Subject areas receiving a high percentage of total calls represent areas of educational want and need.

2. Changes or trends related to a specific subject area must be substantial to give educational guidance; fluctuations of one or two percentage points, although statistically significant, do not warrant educational emphasis.

Physician Data

Three subject areas generate nearly half the current calls from physicians (percentages given are for the six-month period of July - December, 1974):

Cardiovascular and Renal	18.7%
Nervous System	15.5%
Cancer	11.2%
Total	45.4%

While the need or desire for information related to cardiovascular and renal disease remains reasonably constant over the three year period, there are dramatic increases in the percentage of calls related to cancer and the nervous system, with percentages approximately doubling over the past two years.

Four subject areas generate approximately one-fourth of the current calls from physicians:

Psychiatric	6.6%
Alcoholism and Drug Abuse	6.3%
Blood and Lymphatics	5.9%
Gastrointestinal	5.5%
Total	24.3%

The need or desire for psychiatric information shows a dramatic increase during the first two years of the period studied, and then an equally dramatic decrease during 1974. Percentage of calls for tapes related to gastrointestinal disease, while stable during the first two years, also shows a dramatic decrease during the final year, to about half of the former level. Requests for information related to alcoholism and drug abuse and blood and lymphatics remains stable during the three year reporting period.

In the remaining 16 subject areas, with few exceptions, there appears to be a constant but minimal requirement for information. One exception involves emergency care, where there was a steady increase in percentage of calls during the first eighteen months of the study period, but reversion to the initial level during the second eighteen months. Another is a steady decline in interest in endocrine disease.

Nurse Data

Two subject areas generate nearly one-third of the current calls from nurses (again percentages are given for the six-month period of July - December, 1974):

Cardiovascular and Renal	16.4%
Patient with Specific Problems	15.5%
Total	31.9%

Both subject areas show substantial volumes, but declining percentages of total calls during the three-year period. In both instances, there are statistically significant fluctuations, but the most dramatic involve information related to a patient with specific problems. After a steady decline during the first eighteen months, there was a sudden doubling of interest in the subject with reversion back to the lower level during 1974.

Five subject areas account for an additional four-tenths of current library utilization by nurses:

Psychiatric	10.7%
Nervous System	8.8%
Alcoholism and Drug Abuse	8.8%
Cancer	8.5%
Emergency Care	7.0%
Total	43.8%

Of these, the only subject area showing an increasing need or desire for information over the three-year period is cancer, and this is not a dramatic trend. Requests for information related to psychiatric problems and alcoholism and drug abuse are substantial, but show decreasing trends over the three years. Data for the remaining two categories, emergency care and the nervous system, remain substantial but stable during the study period.

In the remaining 16 subject areas the data shows a constant but lower level of interest during the three years of the study.

Conclusions

The methodology described for attempting to identify educational needs or wants for physicians and nurses in the VA system is not a sophisticated one; at best it gives guidance rather than specific direction to those responsible for planning and providing continuing education.

However, it has some apparent advantages over other commonly used methods of curriculum development. It is learner oriented, as opposed to a common practice of having subject area experts set educational priorities. There is a degree of objectivity not obtained in the also common practice of surveying learners about their educational needs; much of the data was generated when the learner encountered a specific patient problem and had a need for information. However, the methodology is admittedly inferior to needs determination evolving from audit committees or medical care evaluation, and other sophisticated procedures.

With these attributes and deficiencies identified, the following may serve as guidance:

1. Both physicians and nurses apparently want and need education related to cardiovascular and renal disease. While there appears to be a slight decrease in the interest of nurses, the subject involves a major and reasonably constant area of need for both professional groups.

2. Nurses show a fluctuating, but substantial, requirement for information related to specific patient problems. For the

most part, these are factors of health care delivery which assist the patient in coping with physical and mental problems related to the disease or condition.

3. Both professions indicate substantial interest in diseases of the nervous system. This is at a higher level, and is apparently increasing for physicians. It is at a substantial and stable level for nurses.

4. Both physicians and nurses demonstrate a substantial and increasing desire for information about cancer during the study period.

5. Some educational emphasis for both professions should be placed on the subject areas of psychiatric problems and alcoholism and drug abuse.

6. While the remaining subject areas are not inconsequential for nurses, there is apparently less need or desire for information, with the possible exception of emergency care.

7. For physicians, there is less need or desire for information in the remaining subject areas, with the possible exceptions of blood and lymphatics and gastrointestinal disease.

APPENDIX I

Educational Needs as Indicated by Utilization Patterns

Background

A chronic problem in continuing education of health professionals is the identification of educational needs or wants. While there has been a certain amount of experimentation, the area is generally one of frustration, and the only generalization that can be made is that any definitive methodology of needs determination is costly. Consequently, when financial resources are limited, one must often be satisfied with reasonable guidance, rather than specific identification of educational need.

Such guidance, it is thought, might be provided by analysis of utilization patterns of an information retrieval service. Such a service has been available to physicians and nurses in the VA system for more than three years. It involves a library of short (4-7 minute) tape recordings on 644 topics, available by telephone at any time of the day or night.

There is reason to believe that utilization patterns do reflect informational or educational needs. Evaluation of the service, involving postcard survey of users, indicates that 35-45% of calls are related to a specific patient problem; this could be interpreted as a demonstration of educational need. The remainder are motivated by a variety of reasons; most of these could be defined as expressions of educational wants. Consequently, an analysis of utilization patterns of the service has been carried out, with the expectation that it will provide some guidance to those responsible for the continuing education of physicians and nurses in the VA system.

Methodology

Since initiation of the service for physicians on January 1, 1971, and for nurses on July 1, 1971, detailed records have been maintained on library utilization patterns. At the time a call is received, the operator records on a log sheet a number of items related to that call. The important data for this analysis is the number of the tape recording and the date on which the call was received. This information is computerized, and consequently can be retrieved in a variety of formats.

Because the utilization patterns during 1971 are affected by a variety of factors involved in initiating and publicizing a new service, that data was eliminated from the analysis. January - June, 1972, was selected as the base period against which subsequent six-month periods would be compared. The study covers a three-year period, 1972 through 1974, with comparisons made in six-month segments.

As indicated by the figures, there has been a decrease in utilization during the report period. It is assumed that this is primarily due to the time elapsed since distribution of the brochure publicizing the service. A new brochure is currently under development, including listing of new tapes produced and indication of those which have been updated during the year. If the contract is continued, press proofs of the brochure will be provided to VACO in late Summer so that a new brochure may be printed and distributed.

During the year a study was made of utilization patterns of the service by Veterans Administration health professionals, as a means of determining changing continuing education needs. This report is included as Appendix I.

APPENDIX L

MAP SHOWING AVERAGE CALLS PER REGISTERED NURSE,
BY COUNTY

Map Showing Average Calls per Registered Nurse by County

Code for Number of calls

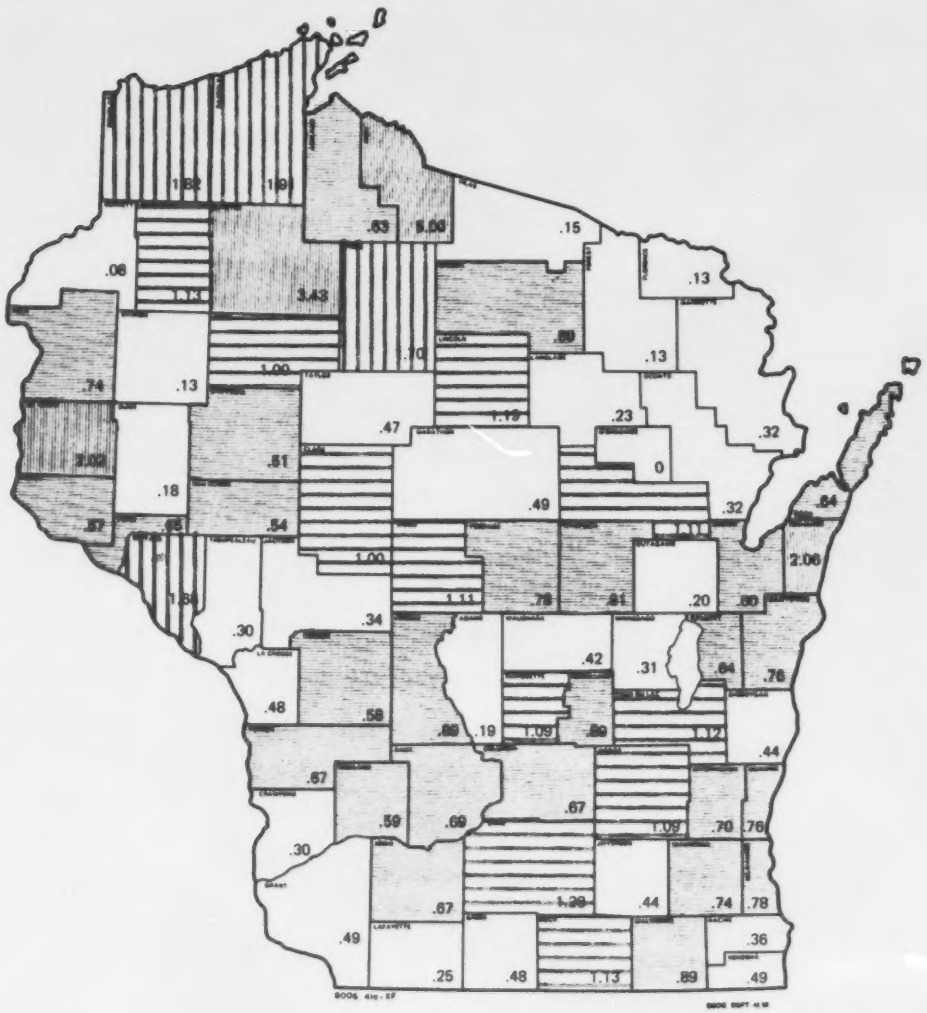
= 2 or more

= 1.5 - 1.99

= 1.0 - 1.49

= .50 - .99

No Marking = 0.49 or less



FROM: Niles, A.G. Definitive Dialing .. Nursing Dial Access, A Report of the Planning Year and the First Eighteen Months in Operation, September 18, 1968 - March 15, 1970. Madison: University of Wisconsin-Extension, Department of Nursing, 1970, p. 24.

APPENDIX M

M.D. SELF-TEST MATERIAL

M.D. SELF-TEST

FREE PHONE CALLS FOR ANSWERS

FOR ANSWERS CALL AS INDICATED:
Milwaukee and Toll-Free Area: 258-9950
Madison and Toll-Free Area: 262-4515
All Others in Wisconsin: 800-362-8183 (Check with local operator on prefix needed)

#4 . . . MAY 1969

Service of Wisconsin Regional Medical Program - with University Extension, The University of Wisconsin and Marquette Medical School

CHILD PSYCHOSES (For Correct Answers Dial for Tape #8)

1. All childhood psychoses have 3 features in common - what are they?

2. Which of the childhood psychoses show the following features in the first 2 years of life?

   a) Indifference b) Panic when familiar surroundings are changed
   c) Falsetto-pitched voice d) Appear intelligent but aloof
   e) show little response to pain f) Wooden body tonus.

3. The "symbiotic psychosis" of childhood which appears between the 2nd and 6th year is characterized by the appearance of "dis-identity". What are the 7 signs and symptoms of "dis-identity"?

4. What is the prognosis of symbiotic psychosis?

5. There are 4 common differential diagnoses to be excluded from childhood psychosis. What are they?

TOXICITY IN CANCER CHEMOTHERAPY (For Correct Answers Dial for Tape #16)

1. What are the 4 steps in combatting the nausea, vomiting and diarrhea which are side effects of many drugs used in cancer chemotherapy?

2. Two simple remedies may help in the management of stomatitis. They are:

   a) avoidance of _____
   b) administration of _____

3. When handling a patient who is receiving chemotherapy the W.B.C. should be performed at regular intervals. What should be done if the count:

   a) drops below 3,000/mm^3?
   b) drops below 2,000/mm^3?

4. What is the management of post-chemotherapeutic thrombocytopenia with ecchymoses?

5. What is the prognosis of alopecia following cancer chemotherapy?

M.D. SELF-TEST

FREE PHONE CALLS FOR ANSWERS

#8 . . . . . FEBRUARY 1970

FOR ANSWERS CALL AS INDICATED:
Milwaukee and Toll-Free Area: 258-9950
Madison and Toll-Free Area: 262-4515
All Others in Wisconsin: 800-362-8183 (Check with local operator on prefix needed)

Service of Wisconsin Regional Medical Program — with University Extension, The University of Wisconsin and Marquette Medical School

WE ARE PLEASED TO RENEW THIS SERVICE.
IT WILL BE CONTINUED ONLY SO LONG AS IT IS USED.

USES AND SIDE EFFECTS OF DIGITALIS (For Correct Answers Dial for Tape #322)

1. The two primary uses of digitalis are:

   a. _____

   b. _____

2. The toxic effects of digitalis are:

   a. _____

   b. _____

3. The treatment of digitalis intoxication is:

   a. _____

   b. _____

ACUTE VENOUS OCCLUSIONS (For Correct Answers Dial for Tape #323)

1. There are five factors predisposing to massive peripheral venous occlusions. What are they?

2. What is the important difference between phlegmasia alba dolens and phlegmasia cerulea dolens, pathologically and as far as prognosis is concerned?

3. Phlebograms are contra-indicated in massive thrombosis of the lower limbs:
   True ____ or False ____

4. Surgery is indicated for leg vein thrombosis only after 48 hours:
   True ____ or False ____

5. Following thrombectomy anticoagulation should be continued for:
   a. 3 days ____ b. 7 days ____ c. 14 days ____ d. 21 days ____

M.D. SELF-TEST

FREE PHONE CALLS FOR ANSWERS

FOR ANSWERS CALL AS INDICATED:
Milwaukee and Toll-Free Area: 258-9950
Madison and Toll-Free Area: 262-4515
All Others in Wisconsin: 800-362-8183 (Check with local operator on prefix needed)

#10 - - - - - - - April 1970

Service of Wisconsin Regional Medical Program - with University Extension, The University of Wisconsin and Marquette Medical School

ACUTE PERICARDITIS (For Correct Answers Dial for Tape #325)

1. Acute pericarditis should be differentiated from the following 6 common catastrophies:

2. List 5 common systemic diseases developing pericarditis.

3. Pain is present in what percentage of patients with pericarditis:

   5%____ 25%____ 50%____ 75%____ All____

4. Pericardial rub disappears when a pericardial effusion is present:

   True____ False____

5. Signs of incipient pericardial tamponade are:

   1:

   2:

   3:

6. EKG changes in acute pericarditis are usually:

   1:

   2:

   3:

7. In the course of therapy for an acute myocardial infarction a patient develops a pericardial rub. The anticoagulants should be:

   Discontinued____ Increased____ Continued unchanged____

APPENDIX N

NEWBORN CARE TESTING MATERIAL

Wisconsin Regional Medical Program, Inc.
307 N. Charter St., Madison, Wisconsin 53715 • (608) 262-9594

RE: Newborn Care Testing Program (MD Dial Access Tapes)

We appreciate your expressed interest in our special study of NEWBORN CARE DIAL ACCESS TAPES, to determine if use of the Library has any transfer of knowledge.

Our plan is as follows:

1. Pre-Test: As soon as all associated tapes have been prepared and the test compiled we will mail you a copy, which you will complete and return. It will be coded, so as to avoid identification.

   This should reach you in late January or early February. (Bear with us, as this all takes time!)

2. You and others participating will then have access to these tapes, and will be encouraged to listen to them as frequently as you desire before they become available to general users of the Library. (This will be about a month after the Pre-Test period has ended).

3. Post-Test: We will mail you this second test, and upon completion it will be compared with your first test and a confidential report mailed to you.

We appreciate very much your interest in this study and we shall enjoy your cooperation in both the testing and the listening to the related tapes.

We shall communicate with you again as soon as the Pre-Test is ready for distribution.

Sincerely,

S. E. Sivertson, M.D.
Medical Director
MD Dial Access Library

SES:dc

UNIVERSITY EXTENSION

The University of Wisconsin
614 North Walnut Street
Madison, Wisconsin 53706
263-2850 • Area Code 608

Department of Postgraduate Medical Education

Thomas C. Meyer, M.D. 608-263-2852
Chairman

Richard H. Hansen 608-263-2853
Director

8 October 1971

Dear Doctor or Nurse:

We are happy to report to you the preliminary results of the self-examination course on care of the newborn in which you were a participant.

A total of 205 pretests were mailed to MDs and Nurses around Wisconsin; 144 tests (70%) were returned. After a period of one month set aside for listening to Dial Access tapes on newborn care, a posttest was mailed out. Seventy-five (52%) of these tests were completed and returned.

The average score on the pretest was 11.9 points out of a possible 23 points. Participants scored an average 14.2 points on the posttest for an average increase of 2.3 points. This 10% increase in the average score indicates that listening to the Dial Access tapes was of positive value.

We are most pleased with the results of the course and wish to thank you for your participation. I hope you found the course to be a valuable learning experience.

Sincerely,

Thomas C Meyer

Dr. Thomas C. Meyer
Director
Dial Access Library

Your pretest score ____

Your posttest score ____

NEWBORN CARE COURSE

Pretest mailed - - - - - - - - - - - - - - - - - 26 April 1971

Tape listing mailed - - - - - - - - - - - - - - 20 May 1971

Posttest mailed - - - - - - - - - - - - - - - - 21 June 1971

On 26 July a follow-up questionnaire was sent asking that participants either return the posttest or tell us why they could not finish the course. Twenty replied that they were too busy to finish listening to the tapes so they felt they could not take the posttest.

PRETEST RESULTS:

Total tests mailed: 205
Total tests returned: 144 (70%)
  MD tests returned: 79
  Nurse tests returned: 65

Total possible points: 23
Average for MDs and Nurses: 11.9 (52%)
  MD average: 12.2 (53%)
  Nurse average: 11.4 (49%)

Range: 4-2/3 points to 19 points (20% to 83%)

POSTTEST RESULTS:

Total tests mailed: 144
Total tests returned: 74 (51%)
  MD tests returned: 35
  Nurse tests returned: 39

Total possible points: 23
Average for MDs and Nurses: 14.1 (61%)
  MD average: 14.5 (63%)
  Nurse average: 13.7 (59%)

Range: 7-1/3 points to 19 points (33% to 83%)

APPENDIX O

ARRANGEMENTS WITH OTHER INSTITUTIONS
AND AGENCIES (SAMPLE)

Through a contract with the University of Wisconsin, the Education Service, Program Management Division, has provided a unique information retrieval service to health professionals in Veterans Administration hospitals throughout the country.

Any physician or nurse facing an emergency or wishing to update their medical knowledge can place a telephone call to the university's Dial Access Service and request a tape recording giving current information on the problem. The tape is played for them immediately over the telephone line. The library consists of over 600 short (4 - 7 minute) messages on a wide variety of diseases and conditions.

More than 30,000 calls have been placed by Veterans Administration personnel since the service was initiated for physicians in 1971 and the nursing service was added in 1972.

The service is initiated by the mailing of brochures, listing available recordings, to all hospitals. Personnel desiring information may then call over the Federal Telephone System to the library in Madison, Wisconsin, and request the appropriate message. An operator receives the call, asks for certain evaluation data, and within 20 seconds plays the recording over the telephone line for the caller. The library is equipped to receive up to five simultaneous calls from VA personnel. The tape recordings have been produced primarily by University of Wisconsin Center for Health Science faculty, but a number have been prepared by medical and nursing experts from other parts of the country. They are reviewed annually and updated if necessary, to assure accuracy of information.

A tabulation of calls since the service was initiated is:

Period	Physician	Nurse	Other	Total
January 1 - June 30, 1971	1,944	0	0	1,944
July 1, 1971 - June 30, 1972	5,967	10,570	313	16,850
July 1, 1972 - June 30, 1973	2,654	7,983	830	11,467
Totals	10,565	18,553	1,143	30,261

The pattern of utilization follows past experience with other groups with introduction of the service, an initial high level of utilization (which occurred between March and June of 1972) and a levelling off at a rate which reflects those health personnel who find the method suits their educational needs. At present utilization is approximately 75% by nursing personnel and 25% by physicians.

An evaluation post card is mailed to each caller, except that frequent callers receive no more than three cards in any one month period regardless of the number of times they use the service. There are two sets of questions, one for those who call with a specific patient problem, and another for those who call for general educational purposes. The tabulations are:

Specific Patient Problem

	Percent	
	Yes	No
Found the information on the tape:		
a. Changed patient management	34.9	65.1
b. Gave new information	68.7	31.3
c. Gave confidence	69.6	30.3
Called because of an emergency	24.3	75.7

Educational Purposes

Found the information on the tape:		
a. Gave me new ideas	46.2	53.8
b. Helpful for review	90.5	9.5
c. Caused me to change my practice	25.0	75.0
d. Too elementary	11.1	88.9

The utilization of the service appears to have stabilized at between 600 - 900 calls per month, a volume which could be expected to have an impact on the quality of patient care delivered in Veterans Administration hospitals.

During the coming year, a limited number of tape recordings will be produced for other health care personnel, as a feasibility study to determine if such a service would be of equal value to them. Also, special promotional techniques will be used to repeatedly bring the service to the attention of physicians and nurses to encourage use of the system when appropriate.

UNIVERSITY OF WISCONSIN

DEPARTMENT OF CONTINUING MEDICAL EDUCATION

Thomas C. Meyer, M.D. 608-263-2852
Chairman
Richard H. Hansen 608-263-2853
Director

610 Walnut Street
Madison, Wisconsin 53706
Telephone: 608-263-2850

August 2, 1976

To: Directors
Veterans Administration Hospitals

From: University of Wisconsin-Extension
Telephone Dial Access Information
Service

Re: Enrollment for Service for 1976-1977

As indicated recently by VA Central Office, the Telephone Dial Access Information Service, which has been available to your physicians and nurses, will not be a centrally funded innovative program after September 30, 1976.

It will, however, be possible for your hospital to subscribe for the service, if you believe it is of value to your health professionals.

The service involves a library of over 600 short (4-6 minute) tape recordings on a variety of health subjects. Subscribing health professionals can call any time during the day or night, seven days a week, and receive current information on the subject they request.

During the five years this has been available to VA physicians and nurses, we have received 52,093 calls. Analysis of these calls indicate they have used the service for a variety of purposes. A major one is to prepare in advance for emergency situations (Management of Delirium Tremens, The Suicidal Patient, First Aid for Heart Attack, etc.). Another is to improve professional-patient relations (Listening and the Nurse, Some Don'ts in Listening, etc.). There has been great interest in specific topics (Treatment of Acute Alcohol Withdrawal, Recognition of Fluid and Electrolyte Imbalance, Thyroid Function Tests, etc.). Most recently, a series of recordings on quality assurance has been popular.

University of Wisconsin provides equal opportunities in employment and programming.

Utilization data also indicates that personnel in certain hospitals use the service much more frequently than in others, and that specific individuals use it frequently and others not at all.

Our main aim as an educational institution is information dissemination, but we have to recover most of the cost of doing this. Consequently, we have come up with a fee structure which we hope fits the utilization pattern of VA health professionals and will give value for your money. The following fees will apply from October 1, 1976 through September 30, 1977:

Individual Service Fee -- $ 7.50
Library Resource Fee -- $100.00

Individual Service Fee

Past experience indicates that certain individuals use the library extensively, and others not at all. Consequently, you may enroll only those professionals who believe this is a valuable resource for them. While it is a service for physicians and nurses, you may wish to enroll other professionals; we will leave this to your judgment.

Each individual enrolled will receive a catalog listing recordings available in the library, and a code number by which the caller will establish his or her identity when using the service. Each person enrolled will have unlimited use for the 12-month period.

Library Resource Fee

A number of librarians have asked us to arrange a special fee which would enable them to refer infrequent callers to the service. Consequently, if a hospital enrolls 10 or more individuals, it can also subscribe on this basis.

Each library would receive catalog listings, and a code number by which all infrequent users would establish hospital identity when using the service. This would provide unlimited use for those referred by librarians for the 12-month period.

We have already received calls from some hospitals which have decided to enroll selected individuals. If you are among these, you can do so on the attached registration form.

If you wish to gain a bit more information on which to base your decision, we are sending under separate cover a number of brochures which can be used between now and September 30, to try out the service. You might pass them cut to interested personnel, to get their opinions.

The following data, giving utilization figures for your hospital in recent years, might also be helpful:

1973-74 -
1974-75 -
1975-76 -

If you do not enroll on the enclosed form, we will be back in touch with you in September.

We have taken the liberty of sending copies of this letter to those listed below, in the hope that it will assist in communicating the details of the proposed service to them, and they will let you know if they have interest.

Please accept this letter as an offer of a service, rather than a sales promotion. We believe the past few years' experience indicates that this is a valuable service for some of your health professionals and want to continue its availability at a reasonable cost.

If there are unanswered questions, feel free to write to the above address, or call Richard H. Hansen, Director, Department of Continuing Medical Education, at Area Code 608-263-2853. Thank you.

RHH:sh

Enclosure

cc: Chief, Medical Service
Chief, Nursing Service
Chief, Library Service
Chief, Supply Service

(Provide this form to the Supply Service of your hospital for inclusion with the order purchasing the services indicated below)

Registration Form

TELEPHONE DIAL ACCESS INFORMATION SERVICE
For Health Professionals of Veterans' Administration Hospitals

Hospital _____

Street Address _____

City _____ State _____ Zip _____

Enroll the following:		Amount
_____ Number	Individual Health Professionals @ $7.50	_____
	Library Resource Service @ $100.00 (Must enroll 10 or more above to be eligible)	_____
	Total	_____

_____ Check Enclosed (Make payable to University of Wisconsin-Extension)

_____ Please Bill

- -

Enroll the following individuals:

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.
11.
12.

(List any additional names on another sheet and attach)

APPENDIX P

INFORMATION FOR HOSPITAL AND CLINIC PATIENTS
AND CONSUMER HEALTH EDUCATION

HEALTH-LINE

INFORMATION FOR HOSPITAL AND CLINIC PATIENTS AND
CONSUMER HEALTH EDUCATION

The HEALTH-LINE library is comprised of over 500 tape-recorded, lay-oriented, easily understandable messages, 3-6 minutes in length, on a variety of health subjects, available by telephone or on audiotapes for use with your playback unit. When telephone access is available, the user selects a topic from the list provided, calls the service and requests the tape. An operator plays the selection over the telephone line.

HEALTH-LINE has been developed by the Department of Continuing Medical Education and the Consumer Health Education Programming Unit of UW-Extension with support from the UW Center for Health Sciences. Messages are prepared by professionals with expertise in the subject areas, receive peer review prior to production and cyclical reviews to assure that they are current in content.

In a companion service, HEALTH-LINE HIGHLIGHTS, a high interest topic is selected for each week and all callers to the service during that week hear the scheduled message.

Telephone access to HEALTH-LINE messages is provided in certain areas of Wisconsin. Audio cassettes or cartridges may be purchased for tape libraries and playback systems.

HEALTH-TIME presents a series of 24 lay-oriented, 3-3½ minute videotapes on safety and health topics. HEALTH-TIME programs are aired over WHA-TV, ETV, and CTN. Videocassettes are available for purchase.

For information relative to catalog of titles, purchase price, system planning, and service, contact Marjorie H. Bartlett, HEALTH-LINE Program Coordinator, Consumer Health Education, 610 Walnut Street, Room 465C, Madison, WI 53706; (608) 263-2358.

HEALTH-LINE ENDORSEMENTS:

State Medical Society of Wisconsin - Annual Meeting, April 1975
Wisconsin Hospital Association - January, 1976
Hospital Auxiliaries Association - January, 1976

University of Wisconsin provides equal opportunities in employment and programming, including Title IX requirements.

APPENDIX Q

A STUDY ON THE FEASIBILITY OF ESTABLISHING A NATIONAL MEDICAL DIAL ACCESS INFORMATION RETRIEVAL SYSTEM (SUMMARY OF CONCLUSIONS)

A STUDY ON THE FEASIBILITY OF ESTABLISHING A NATIONAL MEDICAL DIAL ACCESS INFORMATION RETRIEVAL SYSTEM

Prepared for the Lister Hill National Center

for Biomedical Communications

by

The Department of Postgraduate Medical Education

The University of Wisconsin

The research upon which this publication is based was performed pursuant to Contract No. NLM 69-22 with the National Library of Medicine, National Institutes of Health, Department of Health, Education and Welfare.

Summary of Conclusions

Feasibility

1. It is feasible to establish a national medical dial access information retrieval system (DAIRS).

Communications System

2. The nationwide telephone network provides an appropriate, if not ideal, communications system for a national medical DAIRS.
3. In-WATS telephone service is the most appropriate.
4. Availability in areas not served by In-WATS should be provided after the central resource has been established and stabilized.
5. There are no communications methods under development which have significance for a national medical DAIRS in the near future.

Hardware

6. A technical system providing both automatic and semi-automatic access best meets the present and anticipated needs of a national medical DAIRS.
7. There are no major advances in DAIRS technology considered sufficiently imminent to have a major impact on selection of an appropriate technical system.

Data Base

8. Initial development of the data base should be generally proportional to incidence of disease until sufficient data becomes available to identify informational needs.

9. Specialty societies would most appropriately provide the mechanisms for selection of topics and authors and validation of content.

Promotion

10. The basic promotional method for the resource should be direct mail with a six-month promotional cycle.
11. Supplementary promotion and publicity should be carried out through journal advertising, press releases, columns and feature articles.
12. Promotion should be used as a tool to stabilize utilization.
13. Studies should be conducted on the effect and relative value of the various types of promotion and publicity to refine the long-range promotional program.

Indexing

14. Both a permuted index and subject heading index should be utilized to provide optimum ease of entry into the system, with operator assistance available to those with special problems.

Evaluation

15. The development schedule should be monitored from the start of the project until the system becomes operational.
16. During the first twelve months of operation, data should be gathered on the system of operations to determine whether the system has been established in accordance with planning specifications and whether the operational components are being maintained and improved in terms of

APPENDIX R

DIAL ACCESS LIBRARY FOR HEALTH PROFESSIONALS,
NUMBER OF CALLS 1978-1981

DIAL ACCESS LIBRARY FOR HEALTH PROFESSIONALS

Number of Calls, 1968-1981

Year	WISCONSIN M.D.	WISCONSIN R.N.	WISCONSIN OTHER	V.A. M.D.	V.A. R.N.	V.A. OTHER	PUBLIC HEALTH M.D.	PUBLIC HEALTH R.N.	PUBLIC HEALTH OTHER	MINNESOTA	NORTH DAKOTA	AT&T	TOTAL	COMMENT
1968	6,578	3,436	--							1,868	362	--	12,244	Wisconsin nurses, Minnesota and N. Dakota calls reflect four months.
1969	4,646	12,556	--							2,802	796	--	20,800	--
1970	4,082	14,091	--							3,313	846	176	22,508	AT&T calls for three months.
1971	4,435	17,733	--	2,725	--	--				3,160	691	290	29,034	VA calls for six months. Wisconsin physicians on subscriber basis beginning in September.
1972	2,012	14,896	--	6,659	15,212	1,110	509	--	--	982	5	--	41,385	North Dakota & AT&T phased out. Public Health calls for ten months.
1973	720	16,247	207	1,380	6,051	254	127	240	15				25,241	--
1974	932	18,965	342	3,333	6,853	461	154	32	24				31,096	--
1975	424	15,723	387	1,086	4,306	303	--	--	--				22,229	Public Health contract expired.
1976	709	13,514	501	658	2,122	275	733	275	93				18,880	Public Health contract re-negotiated in March. VA subscribers only, Oct.
1977	419	8,938	293	244	603	106	578	99	62				11,342	Medical and Nursing libraries combined into the Dial Access Library for Health Professionals in September.
1978	126	8,370	234	198	249	70	66	15	15				9,343	Wisconsin physicians phased out in September. Public Health phased out in June. VA phased out in Oct.
1979	--	5,440	352										5,792	
1980	--	7,751	920										8,671	
1981	—	2,814	321										3,135	Library closed August 31, 1981.
TOTAL	25,083	160,474	3,557	16,283	35,396	2,579	2,167	661	209	12,125	2,700	466	261,700	
		189,114			54,258			3,037						

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